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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/500,724

11/29/2004

Per Gramme

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EXAMINER

TURNER, SONJI LUCAS

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

12/13/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/500,724	Applicant(s) GRAMME, PER	
	Examiner Sonji Turner	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-26 is/are pending in the application.
- 4a) Of the above claim(s) 21-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-15, 19, 20 and 26 is/are rejected.
- 7) ☒ Claim(s) 16-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 13 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 13 recites "the gas" on page 2 of line 8, and claim 26 recites the limitation "the gas" on page 5 of line 8. There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 102

4. Claim 13 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Griffen '298 (U.S. Patent No. 2,506,298). Griffen '298 teaches a device for changing the direction of motion of a rotating fluid stream from a spiral motion to a longitudinal motion that contains a centrifugal separation unit for removing foreign particles from gas streams. Griffen '298 discloses an inlet conduit, or pipe, (2) that operates to receive particle-laden air (col. 1, line 37) which is given a rotary motion and throws particles onto the walls of pipe (2). Griffen '298 discloses a device with an inlet pipe (2), a set of stationary blades (3) designed to rotate the fluid flow, an outlet pipe (5), and a mechanism that is a second set of guide blades (12) designed to stop the rotation of the fluid flow located in a transition area, see figure 1.

5. Claims 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Capuano (EP 203896). Capuano teaches a device for the separation of liquid-vapor mixtures in a rising motion that uses centrifugal force to separate components in the mixture (p. 1, lines 1-5). The

device has an inlet pipe (p.4, lines 31-32, figs. 1, 2, and 3), a separation chamber (2) in transition between the inlet pipe and outlet pipe, a vortex generator (3) that rotates the fluid stream (p. 5, lines 7-70), a second device with a plurality of outlets (4) to uniformly distribute the separated phases (p. 5, lines 13-16), and a cylindrical tubular wall (6), or second pipe, with a diameter larger than inlet pipe (figs. 1, 2, and 3).

6. Claims 13 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Merle (EP 210910). Merle discloses an invention intended for separation of solid particles or liquids in suspension in a fluid with a first pipe (10a), a first blade (14) that rotates the fluid flow, and a second pipe (10c) with a second set of blades (16) that stop the fluid rotation (p. 2, ¶ 4). The device disclosed in Merle has a venturi between first blades (14) and a mechanism (16) for stopping the rotation of the gas (figs. 1, 2, 3) located in a transition area between the first and second pipes (figs. 1 and 2).

7. Claims 13 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Jones '614 (U.S. Patent 4,824,614). Jones '614 teaches a device comprising a first horizontal pipe; a first set of stationary guide blades, arranged in the first horizontal pipe for rotating the liquid/gas flow; a second horizontal pipe connected to the first pipe, the second pipe of the same or a different diameter than the first pipe; and a means for stopping the rotation of the gas so that the flow pattern of the liquid/gas flow in the second pipe become stratified over a determined distance, wherein the means is located in a transition area between the first and second horizontal pipes. See Jones '614 – fig. 9; col. 2, lines 17-32; col. 3, lines 52-67; col. 4, lines 1-19; 28-44; 51; col. 8, lines 11-14.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Griffen '298.

Griffen '298 teaches a device for changing the direction of motion of a rotating fluid stream from a spiral motion to a longitudinal motion that contains a centrifugal separation unit for removing foreign particles from gas streams. Griffen '298 discloses an inlet conduit, or pipe, (2) that operates to receive particle-laden air (col. 1, line 37) which is given a rotary motion and throws particles onto the walls of pipe (2). Griffen '298 discloses a device with an inlet pipe (2), a set of stationary blades (3) designed to rotate the fluid flow, an outlet pipe (5), and a mechanism that is a second set of guide blades (12) designed to stop the rotation of the fluid flow located in a transition area, see figure 1. The device disclosed in Griffen '298 is not horizontal; however, it would have been obvious to orientate the device horizontally and mere rearrangement of the parts would not effect the function of the device

Allowable Subject Matter

10. Claims 16 to 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is the examiner's statement for reasons of allowance: None of the prior art of record teach, nor disclose, the claimed features of a mechanism as a perforated plate in combination with the features of the independent claim 13 and any

intervening claims nor the claimed feature where the perforated plate are arranged at an angle in the longitudinal direction of the pipe as in claim 17 in combination with the features of the independent claim 13 and any intervening claims.

Response to Remarks/Arguments

11. Applicant's remarks/arguments filed November 20, 2007 have been fully considered but they are not persuasive. Regarding the preamble of claim 13, the phrase "for transforming a dispersed liquid/gas flow into a stratified flow" indicates intended use, and in the body of claim 13 the phrase "so that the flow pattern of the gas/liquid in the . . ." also indicates intended use for the means plus function stated as "a mechanism for stopping the rotation of the gas." Intended use has been continuously held not to be germane to determining the patentability of the apparatus, *In re In re Finsterwalder*, 168 USPQ 530 (CCPA 1971). Purpose to which apparatus is to be put and expression relating apparatus to contents thereof during intended operation are not significant in determining patentability of an apparatus claim, *Ex parte Thibault*, 164 USPQ 666 (PTO Board of Appeals 1969). Inclusion of the material worked upon by a structure being claimed does not impart patentability to the claims, *In re Otto et al.*, 136 USPQ 458 (CCPA 1963). A recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the structural limitations of that claimed, *Ex parte Masham*, 2 USPQ 2d 1647 (PTO Board of Appeals 1987).

12. The structure for the instant claim is supported in Griffen '298. Additionally, the apparatus in Griffen '298 receives a fluid flow consisting of "a dust or particle laden air or gas" where the gas can be air and the particle can be a liquid (col. 1, l. 37). Additionally, Griffen '298

does not teach away from this interpretation. Regarding remarks relating to Capuano, the instant invention does not include language in the claim to limit the invention to a horizontal pipe. Capuano teaches the structural limitations as stated in the instant claims. Regarding remarks relating to Merle, the reference teaches the structural limitations of the instant claim.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Other prior art references listed on PTO-892 (Notice of References Cited) are considered to be of interest as the references disclose a variety of topics not limited to, but including, the following: devices used for two-phase separation, uniform distribution of two-phase fluids, mist eliminators, low-pressure drop vessels, static mixing devices, static laminar mixing methods, and mixer tubes for low-viscosity fluids.

14. In addition with regards the preamble, see excerpt below from §2111.02 MPEP:

II. PREAMBLE STATEMENTS RECITING PURPOSE OR INTENDED USE

The claim preamble must be read in the context of the entire claim. The determination of whether preamble recitations are structural limitations or mere statements of purpose or use "can be resolved only on review of the entirety of the [record] to gain an understanding of what the inventors actually invented and intended to encompass by the claim." *Corning Glass Works*, 868 F.2d at 1257, 9 USPQ2d at 1966. If the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction. *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165 (Fed. Cir. 1999). See also *Rowe v. Dror*, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997) ("where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation"); *Kropa v. Robie*, 187 F.2d at 152, 88 USPQ2d at 480-81.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sonji Turner whose telephone number is 571-272-1203. The examiner can normally be reached on Monday - Friday, 10:00 am – 2:00 pm (EST).

Application/Control Number:
10/500,724
Art Unit: 1797

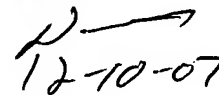
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

st
12/7/2007

DUANE SMITH
PRIMARY EXAMINER


12-10-07